

### **AMENDMENTS TO THE CLAIMS**

1-11. (Canceled)

12. (Currently amended) A method for producing a geogrid, which includes longitudinal fiber-reinforced polymer strips and lateral fiber-reinforced polymer strips that are interconnected at a plurality of junctions to form a lattice structure, the method comprising:

(a) providing longitudinal fiber-reinforced polymer strips and lateral fiber-reinforced polymer strips by co-extruding a polymer resin and a longitudinally elongated fiber or fiber bundle;

~~(a) bending a plurality of longitudinal fiber-reinforced polymer strips to form ridges and valleys in turns so that the ridge and the valley formed in at least one of the longitudinal fiber-reinforced polymer strips are corresponding to the valley and the ridge formed in at least another one of the longitudinal fiber-reinforced polymer strips~~ (b) arranging the longitudinal fiber-reinforced polymer strips in parallel with each other and then bending the longitudinal fiber-reinforced polymer strips at the same time to form ridges and valleys in turns in each of the longitudinal fiber-reinforced polymer strips so that spaces, each of which is closed when viewed in a lateral direction, are formed by at least one of the valleys and at least one of the ridges;

~~(b) inserting at least one lateral fiber-reinforced polymer strip through a space between the corresponding ridge (or, valley) and valley (or, ridge) of the longitudinal fiber-reinforced polymer strips so as to form a first contact point at which a lower surface of the longitudinal fiber-reinforced polymer strip is crossed with an upper surface of the lateral fiber-reinforced polymer surface and a second contact point at which an upper surface of the longitudinal fiber-reinforced polymer strip is crossed with a lower surface of the lateral fiber-reinforced polymer strip~~ (c) inserting the lateral fiber-reinforced polymer strips into the spaces at the same time to form first contact points at which lower surface portions of the longitudinal fiber-reinforced polymer strips are crossed with corresponding upper surface portions of the lateral fiber-reinforced polymer strips and second contact points at which

upper surface portions of the longitudinal fiber-reinforced polymer strips are crossed with corresponding lower surface portions of the lateral fiber-reinforced polymer strips such that the first and second contact points are formed at positions corresponding to the junctions of the lattice structure while not being overlapping; and

~~(c) adhering~~ (d) adhering the longitudinal and lateral fiber-reinforced polymer strips to each other at the first and second contact points;

~~wherein the fiber included in the longitudinal fiber-reinforced polymer strip and the fiber included in the lateral fiber-reinforced polymer strip are continuously extended in a length direction of each strip, and each strip is formed by surrounding the extended fiber with a polymer resin, and~~

~~wherein the longitudinal fiber-reinforced polymer strip and the lateral fiber-reinforced polymer strip are strips having experienced an extruding process but having not experienced a drawing process.~~

13. (Previously amended) The method for producing a geogrid according to claim 12, wherein the first and second contact points are formed in turns in at least one of the longitudinal fiber-reinforced polymer strips.

14. (Currently amended) The method for producing a geogrid according to claim ~~12 or~~ 13, wherein the at least one of the longitudinal fiber-reinforced polymer strips ~~is a~~ is an  $n^{\text{th}}$  strip, ~~and the at least another one of the longitudinal fiber-reinforced polymer strips is a~~ and an  $n+1^{\text{th}}$  strip.

15. (Previously amended) The method for producing a geogrid according to claim 12, wherein at least two second contact points are formed between the first contact points in at least one of the longitudinal fiber-reinforced polymer strips.

16. (Currently amended) The method for producing a geogrid according to claim 12, wherein, in the ~~step (e)~~ step (d), the ~~thermoplastic~~ polymer resins of the longitudinal and lateral fiber-reinforced polymer strips are welded and fixed to each other at the first and second contact points.

17. (Previously amended) The method for producing a geogrid according to claim 16, wherein the first and second contact points are formed by vibration welding, ultrasonic friction welding, or heating adhesion.

18. (Currently amended) The method for producing a geogrid according to claim 17, wherein one of the longitudinal fiber-reinforced polymer strips and the lateral fiber-reinforced polymer strips positioned at the first or second contact points is fixed, while the other is vibrated so as to ~~melt and adhere the thermoplastic polymer resins on opposite surfaces thereof~~ allow the polymer resin on opposite surfaces thereof to be melted and adhered.

19. (Previously amended) The method for producing a geogrid according to claim 12, wherein the first and second contact points are adhered step by step.

20. (Currently amended) A method for producing a geogrid, which includes longitudinal fiber-reinforced polymer strips and lateral fiber-reinforced polymer strips that are interconnected at a plurality of junctions to form a lattice structure, by using a device provided with a strip arranging means ~~with fiber-reinforced polymer strips, each of which is configured so that a strip is reinforced with a fiber in a thermoplastic polymer resin, by using a device including a strip arranging means, which has upper and lower plates for oppositely moving at an interval and first and second bending members alternatively protruded on opposed surfaces of the upper and lower plates,~~

wherein the strip arranging means comprises a upper plate and a lower plate positioned to face the upper plate,

wherein the upper plate, the lower plate, or both are moveable so that the upper and lower plates can come closer to and get away from each other within a predetermined distance,

wherein a predetermined number of first bending members are formed on the lower surface of the upper plate and a predetermined number of second bending members are formed on the upper surface of the lower plate,

wherein the first bending members and the second bending members are formed along a plurality of spaced-apart lateral lines and a plurality of spaced-apart longitudinal lines such that the first and second bending members are formed at positions corresponding to the junctions of the lattice structure while not being overlapping,

the method comprising:

(a) providing longitudinal fiber-reinforced polymer strips and lateral fiber-reinforced polymer strips by co-extruding a polymer resin and a longitudinally elongated fiber or fiber bundle;

~~(a)(b)~~ supplying a plurality of the longitudinal fiber-reinforced polymer strips in a row between the upper and lower plates along the first and second bending members between the upper and lower plates along the plurality of spaced-apart longitudinal lines;

~~(b)(c)~~ bending the longitudinal fiber-reinforced polymer strip by moving the upper and plate, lower plates plate, or both to approach to each other so that a portion of the longitudinal fiber-reinforced polymer strip pressed by the first bending member becomes a valley, while a portion of the longitudinal fiber-reinforced polymer strip pressed by the second bending member becomes a ridge become closer to each other such that the longitudinal fiber-reinforced polymer strips are pressed by the first and second bending members at the same time, thereby forming valleys in each of the longitudinal fiber-reinforced polymer strips at positions where the longitudinal fiber-reinforced polymer strips are pressed by the first bending members and ridges in each of the longitudinal fiber-

reinforced polymer strips at positions where the longitudinal fiber-reinforced polymer strips are pressed by the second bending members, thereby forming spaces, each of which is closed when viewed in a lateral direction, by at least one of the valleys and at least one of the ridges;

~~(c)(d)~~ inserting ~~a lateral the lateral~~ fiber-reinforced polymer strip ~~strips~~ through the corresponding ridge (or, valley) and valley (or, ridge) of the plurality of longitudinal fiber-reinforced polymer strips into the spaces at the same time so that the lateral fiber-reinforced polymer strip ~~is strips are~~ crossed with the longitudinal fiber-reinforced polymer strips; and

~~(d)(e)~~ adhering contact points at which the longitudinal and lateral fiber-reinforced polymer strips are crossed to each other;

~~wherein the fiber included in the longitudinal fiber-reinforced polymer strip and the fiber included in the lateral fiber-reinforced polymer strip are continuously extended in a length direction of each strip, and each strip is formed by surrounding the extended fiber with a polymer resin, and~~

~~wherein the longitudinal fiber-reinforced polymer strip and the lateral fiber-reinforced polymer strip are strips having experienced an extruding process but having not experienced a drawing process.~~

21. (Currently amended) The method for producing a geogrid according to claim 20,

~~wherein support grooves are formed on the first and second bending members along the longitudinal fiber-reinforced polymer strips so that~~ each of the first bending members and each of the second bending members are provided with a support groove that can prevent the longitudinal fiber-reinforced polymer strips are not from being deviated when the longitudinal fiber-reinforced polymer strips are being pressed.

22. (Currently amended) The method for producing a geogrid according to claim 20,  
wherein ~~through holes are formed in the first and second bending members~~  
~~respectively so that each of the first bending members and each of the second bending~~  
~~members are provided with a through hole through which the lateral fiber-reinforced~~  
~~polymer strip is inserted to can pass through.~~

23. (Currently amended) The method for producing a geogrid according to claim 20,  
wherein, in the ~~step (d)~~ step (e), the contact points are adhered by means of a  
welding unit which includes:  
upper and lower jigs which oppositely moves at an interval; and  
a plurality of support holders protruded on opposite surfaces of the upper and lower  
jigs so as to be opposed with each other.

24. (Currently amended) The method for producing a geogrid according to claim 23,  
wherein one of the longitudinal fiber-reinforced polymer strips and the lateral fiber-  
reinforced polymer strips crossed at the contact ~~point~~ points is pressed and supported by  
one of the opposite support holders, and  
wherein the other of the longitudinal fiber-reinforced polymer strips and the lateral  
fiber-reinforced polymer strips crossed at the contact ~~point~~ points is pressed and vibrated  
by the other of the opposite support holders so that the contact point is adhered.

25. (Currently amended) The method for producing a geogrid according to claim 24,  
wherein, in the ~~step (e)~~ step (d), a first contact point at which a lower surface of the  
longitudinal fiber-reinforced polymer strip is crossed with an upper surface of the lateral  
fiber-reinforced polymer strip and a second contact point at which an upper surface of the  
longitudinal fiber-reinforced polymer strip is crossed with a lower surface of the lateral  
fiber-reinforced polymer strip are formed, and

wherein the first and second contact points are adhered step by step with the use of the welding unit.

26. (New) The method for producing a geogrid according to claim 21,

wherein each of the first bending members and each of the second bending members are provided with a through hole through which can pass.